

IN THE CLAIMS:

Please amend the claims as indicated below. The following listing of claims will replace all prior versions, and listings, of claims in the application.

1 – 69. (Cancelled)

70. (Previously Presented) A method for executing graphical data flow programs, the method comprising:

executing a first graphical data flow program, wherein said executing the first graphical data flow program produces first program output, wherein the first graphical data flow program is created using a first graphical program development software application;

executing a second graphical data flow program concurrently with the first graphical data flow program, wherein said executing the second graphical data flow program produces second program output, wherein the second graphical data flow program is created using a second graphical program development software application, wherein the second graphical program development software application is different than the first graphical program development software application; and

displaying the first program output and the second program output in a single graphical user interface panel on a display.

71. (Previously Presented) The method of claim 70, further comprising:

receiving user input to the single graphical user interface panel during said executing; and

providing the user input to at least one of the first graphical data flow program or the second graphical data flow program.

72. (Previously Presented) The method of claim 70, further comprising:

the at least one of the first graphical data flow program or the second graphical data flow program executing to produce a resulting output; and

displaying the resulting output on the single graphical user interface panel.

73. (Previously Presented) The method of claim 70, further comprising:
receiving user input to the single graphical user panel interface during said
executing;

providing the user input to at least one of the first graphical data flow program or
the second graphical data flow program in real time as the user input is received;

the at least one of the first graphical data flow program or the second graphical
data flow program executing in real time using the user input to produce a resulting
output; and

displaying the resulting output on the single graphical user interface panel as the
resulting output is produced.

74. (Previously Presented) The method of claim 70,
wherein the first graphical data flow program executes on a first computer system;
wherein the second graphical data flow program executes on a second computer
system.

75. (Previously Presented) The method of claim 74,
wherein the display that displays the single graphical user interface panel is
comprised on one of the first computer system or the second computer system;
wherein the first computer system is coupled to the second computer system by a
network.

76. (Previously Presented) The method of claim 74,
wherein the display that displays the single graphical user interface panel is
comprised on a third computer system;
wherein the third computer system is coupled to the first computer system and the
second computer system by a network.

77. (Previously Presented) The method of claim 70, further comprising:

displaying the first graphical data flow program on the display; and
displaying the second graphical data flow program on the display.

78. (Previously Presented) The method of claim 70,
wherein the first graphical data flow program comprises a first plurality of interconnected nodes that visually indicate functionality of the first graphical data flow program;
wherein the second graphical data flow program comprises a second plurality of interconnected nodes that visually indicate functionality of the second graphical data flow program.

79. (Previously Presented) The method of claim 70,
wherein the first graphical data flow program comprises a data flow block diagram.

80. (Previously Presented) The method of claim 70,
wherein at least one of the first and second graphical data flow programs executes on a reconfigurable instrument.

81. (Previously Presented) The method of claim 70,
wherein the first and second graphical data flow programs perform a measurement function;
wherein the single graphical user panel interface displays measurement data output from at least one of the first and second graphical data flow programs.

82. (Previously Presented) The method of claim 70,
wherein the first graphical data flow program performs a measurement function;
wherein the second graphical data flow program performs a simulation function.
wherein the single graphical user interface panel displays measurement data output from the first graphical data flow program and displays simulation data output from the second graphical data flow program.

83. (Previously Presented) The method of claim 70,
wherein the first graphical data flow program is developed according to a first graphical programming language;

wherein the second graphical data flow program is developed according to a second graphical programming language, wherein the second graphical programming language is different than the first graphical programming language.

84. (Previously Presented) The method of claim 83,
wherein the first graphical programming language is the G language.

85. (Previously Presented) The method of claim 70, further comprising:
creating the single graphical user interface panel in the first graphical program development software application.

86. (Previously Presented) The method of claim 70,
wherein the single graphical user interface panel operates as a front panel for the first graphical program and the second graphical program.

87. (Previously Presented) The method of claim 70, further comprising:
creating a first portion of the single graphical user interface panel in the first graphical program development software application; and
creating a second portion of the single graphical user interface panel in the second graphical program development software application; and
combining the first portion of the single graphical user interface panel and the second portion of the single graphical user interface panel to create the single graphical user interface panel.

88. (Previously Presented) The method of claim 70,
wherein the single graphical user interface panel operates as a front panel for the first graphical program and the second graphical program;

wherein the front panel is accessible by the user during said executing the first and second graphical data flow programs;

the method further comprising:

receiving user input to the single graphical user interface panel during said executing the first and second graphical data flow programs, wherein the user input is intended for at least one of the first and second graphical data flow programs;

the at least one of the first and second graphical data flow programs executing using the user input when the user input is received to produce a resulting output; and

displaying the resulting output on the single graphical user interface panel.

89. (Previously Presented) The method of claim 70, wherein the first graphical data flow program is one of:

- a LabVIEW program;
- a Simulink program; or
- a VEE program.

90. (Previously Presented) A computer readable memory medium comprising program instructions for executing graphical data flow programs, wherein the program instructions are executable to implement:

executing a first graphical program, wherein said executing the first graphical program produces first program output, wherein the first graphical program is created using first graphical program development software;

executing a second graphical program concurrently with the first graphical program, wherein said executing the second graphical program produces second program output, wherein the second graphical program is created using second graphical program development software, wherein the second graphical program development software is different than the first graphical program development software; and

displaying the first program output and the second program output in a front panel on a display.

91. (Previously Presented) The computer readable memory medium of claim 90, wherein the program instructions are further executable to implement:
receiving user input to the front panel during said executing; and
providing the user input to at least one of the first graphical program or the second graphical program.

92. (Previously Presented) The computer readable memory medium of claim 90, wherein the first graphical program executes on a first computer system;
wherein the second graphical program executes on a second computer system;
wherein the first computer system is coupled to the second computer system by a network;
wherein the display that displays the front panel is comprised on one of the first computer system or the second computer system.

93. (Previously Presented) The computer readable memory medium of claim 90, wherein the first graphical program executes on a first computer system;
wherein the second graphical program executes on a second computer system;
wherein the first computer system is coupled to the second computer system by a network;
wherein the display that displays the front panel is comprised on a third computer system;
wherein the third computer system is coupled to the first computer system and the second computer system by the network.

94. (Previously Presented) The computer readable memory medium of claim 90, wherein the first graphical program comprises a first plurality of interconnected nodes that visually indicate functionality of the first graphical program;
wherein the second graphical data flow program comprises a second plurality of interconnected nodes that visually indicate functionality of the second graphical program.

95. (Previously Presented) The computer readable memory medium of claim 90, wherein the first and second graphical programs each perform a measurement function;

wherein the front panel displays measurement data output from at least one of the first and second graphical programs.

96. (Previously Presented) The computer readable memory medium of claim 90, wherein the first graphical program performs a measurement function; wherein the second graphical program performs a simulation function. wherein the front panel displays measurement data output from the first graphical program and displays simulation data output from the second graphical program.

97. (Previously Presented) The computer readable memory medium of claim 90, wherein the first graphical program is developed according to a first graphical programming language;

wherein the second graphical program is developed according to a second graphical programming language, wherein the second graphical programming language is different than the first graphical programming language.

98. (Previously Presented) The computer readable memory medium of claim 90, wherein the program instructions are further executable to implement:

creating a first portion of the front panel in the first graphical program development software; and

creating a second portion of the front panel in the second graphical program development software; and

combining the first portion of the front panel and the second portion of the front panel to create the front panel.

99. (Previously Presented) The computer readable memory medium of claim 90, wherein the front panel is created in one of the first graphical program development software or the second graphical program development software.

100. (Previously Presented) The computer readable memory medium of claim 90, wherein the front panel comprises a single window.

101. (Previously Presented) A method for executing graphical data flow programs, the method comprising:

executing a first graphical data flow program, wherein said executing the first graphical data flow program produces first program output, wherein the first graphical data flow program is created in a first graphical programming language;

executing a second graphical data flow program concurrently with the first graphical data flow program, wherein said executing the second graphical data flow program produces second program output, wherein the second graphical data flow program is created in a second graphical programming language, wherein the second graphical programming language is different than the first graphical programming language; and

displaying the first program output and the second program output in a front panel on a display.

102. (Previously Presented) A method for executing graphical data flow programs, the method comprising:

creating a first graphical data flow program using a first graphical program development software application; and

creating a second graphical data flow program using a second graphical program development software application, wherein the second graphical program development software application is different than the first graphical program development software application;

executing the first graphical data flow program, wherein said executing the first graphical data flow program produces first program output;

executing the second graphical data flow program concurrently with the first graphical data flow program, wherein said executing the second graphical data flow program produces second program output; and

displaying the first program output and the second program output in a single graphical user interface on a display, wherein the single graphical user interface is created in one of the first graphical program development software application or the second graphical program development software application.

103. (Previously Presented) The method of claim 102, wherein the single graphical user interface operates as a front panel for the first graphical program and the second graphical program.

104. (Previously Presented) The method of claim 102, further comprising: creating the single graphical user interface in at least one of the first graphical program development software application and the second graphical program development software application.

105. (Previously Presented) The method of claim 104, wherein the single graphical user interface comprises a plurality of windows.

106. (Previously Presented) The method of claim 102, further comprising: receiving user input to the single graphical user interface during said executing; and providing the user input to at least one of the first graphical data flow program or the second graphical data flow program.

107. (Previously Presented) The method of claim 102, further comprising: receiving user input to the single graphical user interface during said executing; providing the user input to at least one of the first graphical data flow program or the second graphical data flow program in real time as the user input is received;

the at least one of the first graphical data flow program or the second graphical data flow program executing in real time using the user input to produce a resulting output; and

displaying the resulting output on the single graphical user interface when the resulting output is produced.

108. (Previously Presented) A method for providing a single graphical user interface shared by a plurality of programs, wherein at least one of the plurality of programs is a graphical data flow program, the method comprising:

executing a plurality of programs concurrently, wherein each of the programs is operable to produce program output, wherein at least one of the programs is a graphical data flow program created using graphical program development software, wherein at least another one of the programs was created using second program development software;

receiving the program output of each program; and

displaying the program output of each program in a single graphical user interface panel.

109. (Previously Presented) The method of claim 108, further comprising:

receiving program input to the single graphical user interface panel; and

providing the program input to at least one of the plurality of programs.

110. (Previously Presented) A computer readable memory medium comprising program instructions for providing a front panel shared by a plurality of programs, wherein at least one of the plurality of programs is a graphical data flow program, wherein the program instructions are executable to implement:

executing a plurality of programs concurrently, wherein each of the programs is operable to produce program output, wherein at least one of the programs is a graphical data flow program created using graphical program development software, wherein at

least another one of the programs was created using second program development software;

receiving the program output of each program; and
displaying the program output of each program in the front panel.

111. (Previously Presented) The computer readable memory medium of claim 110, wherein the program instructions are further executable to implement:

receiving program input to the front panel; and
providing the program input to at least one of the plurality of programs.

112. (Previously Presented) A method for providing a single graphical user interface panel shared by a plurality of graphical data flow programs, the method comprising:

executing a plurality of graphical data flow programs concurrently, wherein each of the graphical data flow programs is operable to produce program output, wherein each of the plurality of graphical data flow programs was created using different graphical program development software;

receiving the program output of each graphical data flow program; and
displaying the program output of each graphical data flow program in a single graphical user interface panel.

113. (Previously Presented) The method of claim 112, further comprising:

receiving program input to the single graphical user interface panel; and
providing the program input to at least one of the plurality of graphical data flow programs.

114. (Previously Presented) A computer readable memory medium, the memory medium comprising program instructions executable to:

receive first program output of a first graphical data flow program, wherein the first graphical data flow program is created using first graphical program development software;

receive second program output of a second graphical data flow program executing concurrently with the first graphical data flow program, wherein the second graphical data flow program is created using second graphical program development software;

display the first program output and the second program output in a front panel on a display.

115. (Previously Presented) The memory medium of claim 114, further comprising program instructions executable to:

receive program input to the front panel; and

provide the program input to at least one of the first graphical data flow program or the second graphical data flow program.

116. (Previously Presented) The memory medium of claim 114, wherein the first graphical data flow program executes on a first computer system; wherein the second graphical data flow program executes on a second computer system.

117. (Previously Presented) The memory medium of claim 116, wherein the display that displays the front panel is comprised on one of the first computer system or the second computer system;

wherein the first computer system is coupled to the second computer system by a network.

118. (Previously Presented) The memory medium of claim 116, wherein the display that displays the front panel is comprised on a third computer system;

wherein the third computer system is coupled to the first computer system and the second computer system by a network.

119. (Previously Presented) The memory medium of claim 114,
wherein the first graphical data flow program comprises a first plurality of interconnected nodes that visually indicate functionality of the first graphical data flow program;

wherein the second graphical data flow program comprises a second plurality of interconnected nodes that visually indicate functionality of the second graphical data flow program.

120. (Previously Presented) The memory medium of claim 114,
wherein the first graphical data flow program comprises a data flow block diagram.

121. (Previously Presented) The memory medium of claim 114,
wherein at least one of the first and second graphical data flow programs executes on a reconfigurable instrument.

122. (Previously Presented) The memory medium of claim 114,
wherein the first and second graphical data flow programs perform a measurement function;

wherein the front panel displays measurement data output from at least one of the first and second graphical data flow programs.

123. (Previously Presented) The memory medium of claim 114,
wherein the first graphical data flow program is developed in a first graphical programming language;

wherein the second graphical data flow program is developed in a second different graphical programming language.

124. (Previously Presented) The memory medium of claim 114,
wherein the first graphical data flow program is one of:

- a LabVIEW program;
- a Simulink program; or
- a VEE program.

125. (Previously Presented) A system for executing graphical data flow programs, the system comprising:

- a first computer system;
- a second computer system;
- a third computer system coupled to first and second computer systems;
- a display device coupled to the third computer system;

wherein the first computer system executes a first graphical data flow program, wherein the first graphical data flow program is created using first graphical program development software, wherein said executing the first graphical data flow program produces first program output;

wherein the second computer system executes a second graphical data flow program concurrently with the first graphical data flow program, wherein the second graphical data flow program is created using second graphical program development software, wherein said executing the second graphical data flow program produces second program output;

wherein the third computer system displays the first program output and the second program output in a single graphical user interface on the display device, wherein the single graphical user interface is created using one of the first graphical program development software or the second graphical program development software.

126. (Previously Presented) A system for executing graphical data flow programs, the system comprising:

- a first computer system;
- a second computer system coupled to first computer system;
- a display device coupled to the first computer system;

wherein the first computer system executes a first graphical data flow program, wherein the first graphical data flow program is created using first graphical program

development software, wherein said executing the first graphical data flow program produces first program output;

wherein the second computer system executes a second graphical data flow program concurrently with the first graphical data flow program, wherein the second graphical data flow program is created using second graphical program development software, wherein said executing the second graphical data flow program produces second program output;

wherein the first computer system displays the first program output and the second program output in a single graphical user interface panel on the display device.

127. (Previously Presented) A system for executing graphical data flow programs, the system comprising:

a computer system;

a display device coupled to the computer system;

wherein the computer system executes a first graphical data flow program, wherein the first graphical data flow program is created using first graphical program development software, wherein said executing the first graphical data flow program produces first program output;

wherein the computer system executes a second graphical data flow program concurrently with the first graphical data flow program, wherein the second graphical data flow program is created using second graphical program development software, wherein said executing the second graphical data flow program produces second program output;

wherein the computer system displays the first program output and the second program output in a front panel on the display device.

128. (Previously Presented) A system for executing graphical data flow programs, the system comprising:

a computer system including a processor;

a reconfigurable instrument coupled to computer system;

a display device coupled to the computer system;

wherein the processor of the computer system executes a first graphical data flow program, wherein the first graphical data flow program is created using first graphical program development software, wherein said executing the first graphical data flow program produces first program output;

wherein the reconfigurable instrument executes a second graphical data flow program concurrently with the first graphical data flow program, wherein the second graphical data flow program is created using second graphical program development software, wherein said executing the second graphical data flow program produces second program output;

wherein the computer system displays the first program output and the second program output in a front panel on the display device.

129. (Currently Amended) A method for performing a software simulation, the method comprising:

executing a simulation program, wherein the simulation program comprises a first graphical program created using first graphical program development software, and wherein said executing the first graphical program produces first program output;

executing a measurement program concurrently with the simulation program, wherein the measurement program comprises a second graphical program created using second graphical program development software, and wherein said executing the second graphical program produces second program output; [[and]]

displaying a single graphical user interface panel comprising a first plurality of graphical user interface elements for the simulation program and a second plurality of graphical user interface elements for the measurement program; and

displaying the first program output and the second program output in the single graphical user interface panel on a display.

130. (Previously Presented) The method of claim 129,

wherein the first plurality of graphical user interface elements includes one or more GUI controls for providing input to the simulation program.

131. (Previously Presented) The method of claim 129,
wherein the first plurality of graphical user interface elements includes one or more GUI indicators for displaying output of the simulation program.

132. (Previously Presented) The method of claim 129,
wherein the second plurality of graphical user interface elements includes one or more GUI controls for providing input to the measurement program.

133. (Previously Presented) The method of claim 129,
wherein the second plurality of graphical user interface elements includes one or more GUI indicators for displaying output of the measurement program.

134. (Previously Presented) The method of claim 129,
wherein the first graphical program is created using the Simulink graphical program development environment; and
wherein the second graphical program is created using the LabVIEW graphical program development environment.

135. (Currently Amended) A method for simulating operation of a product, the method comprising:

executing a simulation program which simulates operation of the product, wherein the simulation program comprises a first graphical program created using first graphical program development software, and wherein said executing the first graphical program produces first program output;

executing a measurement program concurrently with the simulation program, wherein the measurement program measures characteristics of the operation of the product, wherein the measurement program comprises a second graphical program created using second graphical program development software, and wherein said executing the second graphical program produces second program output; [[and]]

displaying a single graphical user interface comprising a first plurality of graphical user interface elements for the simulation program and a second plurality of

graphical user interface elements for the measurement program, wherein the single graphical user interface was created using one of the first graphical program development software or the second graphical program development software; and

displaying the first program output and the second program output in the single graphical user interface on a display.

136. (Previously Presented) The method of claim 135,

wherein the single graphical user interface comprises a front panel that can be interactively used to assign input values to and display resulting output values from at least one of the simulation program and the measurement program.

137. (Currently Amended) A method for simulating operation of a product, the method comprising:

executing a first graphical program which simulates operation of the product, wherein the first graphical program comprises a plurality of interconnected nodes which visually indicate functionality of the first graphical program, wherein the first graphical program was created using a first graphical programming language, and wherein said executing the first graphical program produces first program output;

executing a second graphical program concurrently with the first graphical program, wherein the second graphical program measures characteristics of the operation of the product, wherein the second graphical program comprises a plurality of interconnected nodes which visually indicate functionality of the second graphical program, wherein the second graphical program was created using a second graphical programming language, and wherein said executing the second graphical program produces second program output; and

displaying a single graphical user interface panel comprising a first one or more graphical user interface elements for the first graphical program and a second one or more graphical user interface elements for the second graphical program; and

displaying the first program output and the second program output in the single graphical user interface panel on a display.

138. (Previously Presented) The method of claim 137,

wherein the single graphical user interface panel comprises a front panel that can be interactively used to assign input values to and display resulting output values from at least one of the first graphical program and the second graphical program.

139. (Previously Presented) The method of claim 137, wherein the first graphical program is a data flow program.

140. (Previously Presented) The method of claim 137, wherein the second graphical program is a data flow program.